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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,593	02/18/2004	Eric T. Martin	200208787-1	6308

22879 7590 01/02/2008

HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER	
THOMAS, BRANDI N	
ART UNIT	**PAPER NUMBER**
2873	

NOTIFICATION DATE	DELIVERY MODE
01/02/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM
mkraft@hp.com
ipa.mail@hp.com

Office Action Summary	Application No.	Applicant(s)	
	10/782,593	MARTIN ET AL.	
	Examiner	Art Unit	
	Brandi N. Thomas	2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13-19 and 34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13-19 and 34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 February 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☒ Other: *Detailed Action*.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 13-19 and 34 are rejected under 35 U.S.C. 102(e) as being anticipated by Martin et al. (2004/0218341 A1).

Regarding claims 13 and 34, Martin et al. discloses in figures 1 and 4, a method of controlling a gap (48) between at least one fixed plate (42) and an electrostatically movable plate (44) in a MEMS device (34) (sections 0013 and 0014), comprising: time modulating a control signal to a controlled current output that is variable voltage compliant to represent a desired gap (48) between the fixed plate (42) and the electrostatically movable plate (44) (section 0014); selectively routing a charge which is a function of the controlled current output and the modulated time to array elements (N and M) each including control circuitry (40) and one of the plurality of electro-mechanical devices (34) (figure 4 and section 0045); and displacing the electrostatically movable plate (44) in response to the controlled current output (section 0013).

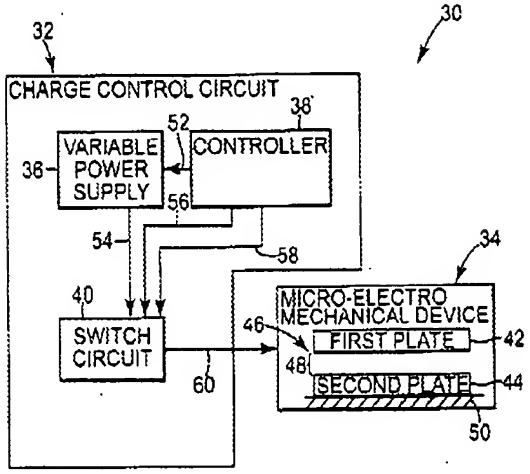

Fig. 1

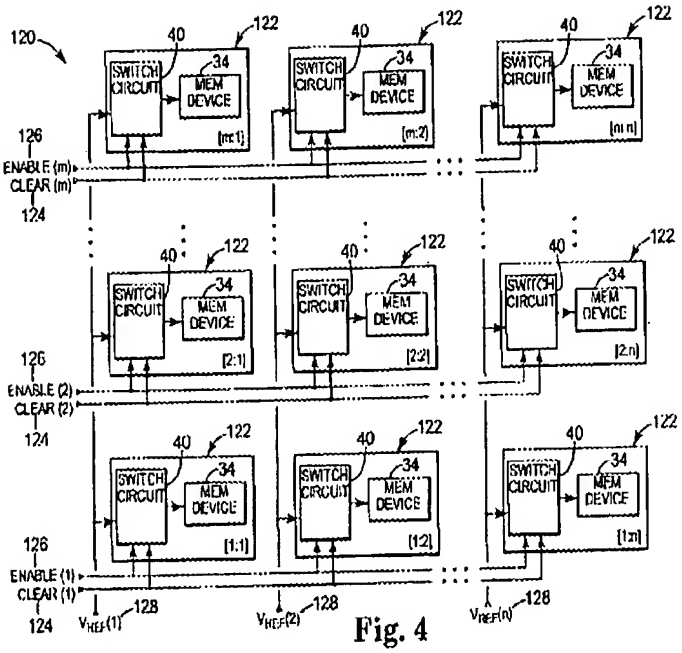

Fig. 4

Regarding claim 14, Martin et al. discloses in figures 1 and 4, a method of controlling a gap (48) between at least one fixed plate (42) and an electrostatically movable plate (44) in a MEMS device (34) (sections 0013 and 0014), wherein selectively routing a charge comprises selectively mirroring a reference current onto a controlled current output coupled to the MEMS device (34) on the basis of the time modulated control signal (section 0014).

Regarding claim 15, Martin et al. discloses in figures 1 and 4, a method of controlling a gap (48) between at least one fixed plate (42) and an electrostatically movable plate (44) in a MEMS device (34) (sections 0013 and 0014), wherein selectively mirroring the reference current selectively mirrors the reference current onto a plurality of controlled current outputs, each of the plurality of controlled current outputs being coupled to one of a plurality of MEMS devices (section 0045), and wherein displacing the electrostatically movable plate displaces an

electrostatically movable plate (44) in each of the plurality of MEMS devices (34) in response to a corresponding controlled current output (section 0046).

Regarding claim 16, Martin et al. discloses in figures 1 and 4, a method of controlling a gap (48) between at least one fixed plate (42) and an electrostatically movable plate (44) in a MEMS device (34) (sections 0013 and 0014), further comprising: generating the reference current (section 0046).

Regarding claim 17, Martin et al. discloses in figures 1 and 4, a method of controlling a gap (48) between at least one fixed plate (42) and an electrostatically movable plate (44) in a MEMS device (34) (sections 0013 and 0014), further comprising: adjusting the reference current to represent the desired gap (48) between the fixed plate (44) and the electrostatically movable plate (42) (sections 0014 and 0046).

Regarding claim 18, Martin et al. discloses in figures 1 and 4, a method of controlling a gap (48) between at least one fixed plate (42) and an electrostatically movable plate (44) in a MEMS device (34) (sections 0013 and 0014), wherein selectively mirroring the reference current onto the controlled current output generates a variable voltage compliant controlled current output (sections 0014 and 0046).

Regarding claim 19, Martin et al. discloses in figures 1 and 4, a method of controlling a gap (48) between at least one fixed plate (42) and an electrostatically movable plate (44) in a MEMS device (34) (sections 0013 and 0014), further comprising selectively setting a predetermined charge in the MEMS device (34) before displacing the electrostatically movable plate (42) in response to the controlled current output (sections 0014 and 0046).

Response to Arguments

3. Applicant's arguments filed 10/10/07 have been fully considered but they are not persuasive. Applicant argues that Martin et al. does not disclose the limitation " to a controlled current output that is variable voltage compliant". However, Martin et al. discloses a variable power supply that selects the voltage level (section 0014), varying the power supply varies the voltage level produced by the power supply. Therefore the claimed limitations are disclosed.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandi N. Thomas whose telephone number is 571-272-2341. The examiner can normally be reached on Monday - Thursday from 6-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Brandi N Thomas
Examiner
Art Unit 2873

BNT

Scott J. Sugarman
Primary Examiner